



Lyo Innovation
Lyo Technology Enables innovation

NEW GENERATION · 2026

LyoinFD® Helix Series

Versatile Benchtop Freeze Dryer

A single platform. Three configurations. Limitless research potential — from pharmaceutical R&D to advanced food science.

-100 °C

MIN. CONDENSER TEMP

4–7 kg

ICE CAPACITY

Dual-Mode

FLASK & SHELF



Three Models, One Platform

Choose the configuration that best matches your research scale — all sharing the same proven Helix technology core.

Helix 4E



Helix 6S



Helix 7M



LYOINFD® SERIES

Helix 4E

Compact entry-level model ideal for basic lyophilization research with efficient performance and minimal footprint.

ICE CAPACITY

4kg

CONDENSER TEMP

-60°C

MODE

Shelf

SHELF AREA

0.09m²

LYOINFD® SERIES

Helix 6S

Mid-range model designed for scalable batch processing, featuring a lower condenser temperature and greater ice capacity.

ICE CAPACITY

6kg

CONDENSER TEMP

-68°C

MODE

Dual

SHELF AREA

0.12m²

LYOINFD® SERIES · FLAGSHIP

Helix 7M

The flagship model offering maximum ice capacity, lowest condenser temperature and dual-mode operation for demanding R&D applications.

ICE CAPACITY

7kg

CONDENSER TEMP

-100°C

MODE

Dual

SHELF AREA

0.12m²

Engineered for Precision & Flexibility

The LyoinFD® Helix Series was developed to bridge the gap between laboratory-scale convenience and pilot-grade performance. With its intelligent control platform and dual-mode capability, it adapts to your protocol — not the other way around.

Pharmaceutical R&D

Biopharmaceuticals

Food Science

Environmental Testing

Material Synthesis

Universities & Institutes



Ultra-Low Temperature

Condenser temperature down to -100°C ensures complete sublimation of even the most challenging formulations.



Dual-Mode Operation

Seamlessly switch between external flask mode and internal shelf mode — two instruments in one compact unit.



Intelligent Monitoring

Real-time data logging, automated control, and color-coded vacuum and temperature monitoring keep your processes on track 24/7.



Euro-Class Refrigeration

European-standard compressor systems deliver reliable, energy-efficient cooling with low vibration and noise.



Helix 4E — Compact Shelf Mode



Helix 6S — Dual-Mode Configuration



Helix 7M — Dual-Mode Flagship

TECHNICAL SPECIFICATIONS

Built to Spec. Proven in Practice.

LyoinFD® Helix 7M (Flagship)

Ice Capacity	7 kg
Minimum Condenser Temperature	- 100 °C
Operation Mode	Flask + Shelf (Dual)
Shelf Area / Manifold	0.12m²+10 ports / 16 ports
Management	3 levels of security
Vacuum Level	≤ 5 Pa
Refrigeration System	European-Standard
Display & Control	7" Touchscreen

Model Comparison

Model	4E	6S	7M
Ice Capacity	4 kg	6 kg	7kg
Min. Cond. Temp	-60°C	-68°C	-100°C
Shelf Area	0.09m²	0.12m²	0.12m²
Operation Mode	Shelf	Dual	Dual





APPLICATION EXCELLENCE

From Lab Bench to Breakthrough Discovery

Trusted by leading universities, pharmaceutical companies, research institutes and government agencies from multiple countries.

- Preserves biological activity and molecular integrity.
- Dual-mode design with flexible configurations for flasks or shelves.
- Intelligent control with real-time monitoring and automated vacuum management.
- Comprehensive data logging with real-time lyophilization trends.
- Three-level access management with 8 language options.
- Efficient & stable refrigeration, anti-condensation design, multiple seals.
- Flexible chamber options to meet diverse experimental needs.



HELIX 4E



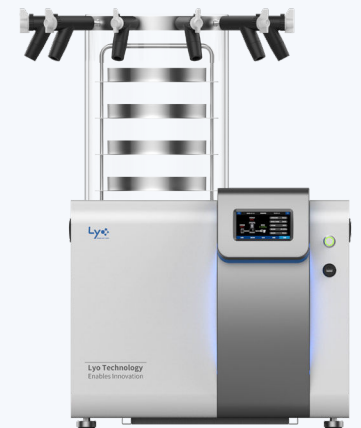
HELIX 6S



HELIX 7M



SHELF MODE



DUAL MODE

Ready to Transform Your **Lyophilization** Lab?

Our application specialists are ready to help you select the right Helix configuration for your specific research needs. Request a demo or quotation today.

[REQUEST A DEMO →](#)



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